

Notice of Allowability

Application No.

10/763,333

Examiner

Anne M. Hines

Applicant(s)

JUNG, SUNG-HAN

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed 7/28/06.
2. ☒ The allowed claim(s) is/are 2-12.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Response to Amendment

The amendment filed on July 28, 2006, has been entered and acknowledged by the Examiner.

Claims 2-12 are pending in the instant application.

Allowable Subject Matter

Claims 2-12 are allowed.

Regarding independent claim 2, the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claim 2, and specifically comprising the limitation wherein diagonal size U of the effective surface is 570mm – 700mm, and a following condition is satisfied:

$-1.7168 \cdot \ln(U/1\text{mm}) + 11.627 \leq (R_h \cdot R_v \cdot R_o / U) \cdot T_c \leq -2.0131 \cdot \ln(U/1\text{mm}) + 13.645$, wherein a value obtained by dividing an inner curvature radius Rx of the effective surface of the panel following a long axis (X) by a distance Lx of the effective surface of the panel following a 1.767*long axis is Rh, a value obtained by dividing an inner curvature radius Ry of the effective surface of the panel following a short axis (Y) by a distance Ly of the effective surface of the panel following a 1.767*short axis is Rv, a value obtained by dividing an inner curvature radius of the effective surface of the panel following a diagonal axis (D) by a distance Ld of the effective surface of the panel following a 1.767*diagonal axis is Ro, and the thickness of the center point of the panel is Tc; wherein a following condition is satisfied: $10\text{mm} \leq T_c \leq 12.4\text{mm}$.

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Regarding independent claim 3, the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claim 3, and specifically comprising the limitation wherein diagonal size U of the effective surface is 570mm – 700mm, and a following condition is satisfied:

$-7168 \cdot \ln(U/1\text{mm}) + 11.627 \leq (R_h \cdot R_v \cdot R_o / U) \cdot T_c \leq -2.0131 \cdot \ln(U/1\text{mm}) + 13.645$, wherein a value obtained by dividing an inner curvature radius Rx of the effective surface of the panel following a long axis (X) by a distance Lx of the effective surface of the panel following a 1.767*long axis is Rh, a value obtained by dividing an inner curvature radius Ry of the effective surface of the panel following a short axis (Y) by a distance Ly of the effective surface of the panel following a 1.767*short axis is Rv, a value obtained by dividing an inner curvature radius of the effective surface of the panel following a diagonal axis (D) by a distance Ld of the effective surface of the panel following a 1.767*diagonal axis is Ro, and the thickness of the center point of the panel is Tc; wherein a following condition is satisfied: $0.0875 \cdot \ln(U/1\text{mm}) - 0.4192 \leq \text{OAH}/U \leq 0.0981 \cdot \ln(U/1\text{mm}) - 0.4753$, and a tube axis directional distance from the center of the outer surface of the panel to a seal edge line is OAH.

Regarding independent claim 4 the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claim 4, and specifically comprising the limitation wherein diagonal size U of the effective surface is 650mm – 760mm, and a following condition is satisfied:

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$$-2.13191\text{mm} \cdot \ln(U/1\text{mm}) + 14.589 \leq (R_h \cdot R_v \cdot R_o / U) \cdot T_c \leq -2.5462 \cdot \ln(U/1\text{mm}) + 17.414,$$

wherein a value obtained by dividing an inner curvature radius R_x of the effective surface of the panel following a long axis (X) by a distance L_x of the effective surface of the panel following a $1.767 \cdot$ long axis is R_h , a value obtained by dividing an inner curvature radius R_y of the effective surface of the panel following a short axis (Y) by a distance L_y of the effective surface of the panel following a $1.767 \cdot$ short axis is R_v , a value obtained by dividing an inner curvature radius of the effective surface of the panel following a diagonal axis (D) by a distance L_d of the effective surface of the panel following a $1.767 \cdot$ diagonal axis is R_o , and the thickness of the center point of the panel is T_c .

Regarding claims 5-6, claims 5-6 are allowable for the reasons given in claim 4 because of their dependency status from claim 4.

Regarding independent claim 7 the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claim 7, and specifically comprising the limitation wherein diagonal size U of the effective surface is 400mm – 500mm, and a following condition is satisfied:

$$-0.8629 \cdot \ln(U/1\text{mm}) + 5.6754 \leq (R_h \cdot R_v \cdot R_o / U) \cdot T_c \leq -1.0547 \cdot \ln(U/1\text{mm}) + 6.9366,$$

wherein a value obtained by dividing an inner curvature radius R_x of the effective surface of the panel following a long axis (X) by a distance L_x of the effective surface of the panel following a $1.767 \cdot$ long axis is R_h , a value obtained by dividing an inner curvature radius R_y of the effective surface of the panel following a short axis (Y) by a distance L_y of the effective surface of the panel following a $1.767 \cdot$ short axis is R_v ,

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a value obtained by dividing an inner curvature radius of the effective surface of the panel following a diagonal axis (D) by a distance Ld of the effective surface of the panel following a 1.767*diagonal axis is Ro, and the thickness of the center point of the panel is Tc.

Regarding claims 8-9, claims 8-9 are allowable for the reasons given in claim 7 because of their dependency status from claim 7.

Regarding independent claim 10 the references of the Prior Art of record fail to teach or suggest the combination of the limitations as set forth in claim 10, and specifically comprising the limitation wherein diagonal size U of the effective surface is 650mm – 700mm, and a following condition is satisfied:

$$-17.746 \cdot \ln(U/1\text{mm})\text{mm} + 116.49 \leq (R_h \cdot R_v \cdot R_o / U) \cdot T_c \leq -20.322 \cdot \ln(U/1\text{mm}) + 133.45,$$

wherein a value obtained by dividing an inner curvature radius Rx of the effective surface of the panel following a long axis (X) by a distance Lx of the effective surface of the panel following a 1.767*long axis is Rh, a value obtained by dividing an inner curvature radius Ry of the effective surface of the panel following a short axis (Y) by a distance Ly of the effective surface of the panel following a 1.767*short axis is Rv, a value obtained by dividing an inner curvature radius of the effective surface of the panel following a diagonal axis (D) by a distance Ld of the effective surface of the panel following a 1.767*diagonal axis is Ro, and the thickness of the center point of the panel is Tc.

Regarding claims 11-12, claims 11-12 are allowable for the reasons given in claim 10 because of their dependency status from claim 10.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anne M Hines
Patent Examiner
Art Unit 2879

AMH
9/29/06

msy
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PRIMARY EXAMINER